

Work Order ID 134045 -2

Thursday, June 25, 2015 12:35:34 PM

134045

~~stock~~
Ship Aug 13th
Page 1

Item ID: D412-702-021

Accept

N900040100

Setup Start *NS1*

Revision ID:

Item Name: Shoulder Harness, 4 Point Attachment, 13 Man Configuration

Stop *NS2*

Start Date: 6/25/2015 Start Qty: 2.00

2

Cust Item ID:

Required Date: 6/25/2015 Req'd Qty: 2.00

2

Customer:

Reference:

Approvals: Process Plan: ML3 Date: JUN 25 2015

Tooling:

Date:

Run Start *NR1*

QC: _____ Date: _____ SPC (Y/N): _____

Date:

Stop *NR2*

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
--------------------------------	--------------------------	----------------------	---------	--------	--------------	---------------	---------------	------------------	----------------

Draw Nbr	Revision Nbr
DSI9559	A
IIN-D412-702-1	A

DAB
27
9-89

100

Document Control

0.00

100

DC

DOCUMENT CONTROL

Memo

0.00

Doc.Control -USB or Paperwork

Photocopy bluefile and create labels per PPP D412-702-021 CHG003

DAS
6
9-89

AUG 17 2015

110

Pick Kit

0.00

110

Packaging

Memo

0.00

Packaging

DAB
27
9-89

AUG 05 2015

DAS
28
9-89

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____		DISPOSITION		AGAINST DEPARTMENT/PROCESS													
		Rework ☐		Skid-tube ☐		Cross tube ☐		Water Jet ☐		Engineering ☐							
Part No. _____		Scrap ☐		Machining ☐		Small Fab ☐		Prod. Eng. Coord. ☐		Quality ☐							
		Use-as-is ☐		Thermoforming ☐		Finishing ☐		Rec/Store/Packaging ☐		Other ☐							
NCR No. _____		Suspected Unapproved ☐		Large Fab ☐		Composite ☐		Supplier ☐									
Date : _____		Step #: _____			QTY Effective : _____				MRB (QSI042) Approval								
Description Work Order Deviation					Disposition												
									Completed By								
									Lead hand / Supervisor Approval Verification								
									QC / QA Coordinator Approval								
Root Cause <table style="width: 100%;"> <tr> <td style="width: 50%;"> Environment ☐ Design ☐ Doc/Data ☐ Equip/Tooling ☐ Handling/Pre ☐ Material ☐ Internal Transport ☐ Tribal Knowledge ☐ LQA ☐ Substation ☐ Past Expiry Date ☐ Misidentified ☐ </td> <td style="width: 50%;"> No Re-verification ☐ Operator ☐ Offset/Setup ☐ Supplier ☐ Training ☐ Use for Testing ☐ Poor Information ☐ Rushing ☐ Product Improvement ☐ Process Improvement ☐ Manufacturing Process ☐ Past Due ☐ </td> </tr> </table>					Environment ☐ Design ☐ Doc/Data ☐ Equip/Tooling ☐ Handling/Pre ☐ Material ☐ Internal Transport ☐ Tribal Knowledge ☐ LQA ☐ Substation ☐ Past Expiry Date ☐ Misidentified ☐	No Re-verification ☐ Operator ☐ Offset/Setup ☐ Supplier ☐ Training ☐ Use for Testing ☐ Poor Information ☐ Rushing ☐ Product Improvement ☐ Process Improvement ☐ Manufacturing Process ☐ Past Due ☐	FAULT CATEGORY <table style="width: 100%;"> <tr> <td style="width: 33%;"> Pressure/Forced ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Wave/Twist in Tube ☐ Marks/Chatter ☐ </td> <td style="width: 33%;"> Temperature/Cure ☐ Set-up ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Inspection Incomplete/Unqualified ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Instructions Incomplete/Unclear ☐ Drill Holes ☐ </td> <td style="width: 33%;"> Power Loss/Surge ☐ Folio/Program ☐ Grain ☐ Weld ☐ Wrong Stock Pulled ☐ Out of Sequence ☐ Off-set ☐ Misabeled ☐ Fit/Function ☐ Misaligned/off center ☐ </td> <td style="width: 33%;"> Positioned Wrong ☐ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Drawing ☐ Finish ☐ Misread ☐ Turning Sequence ☐ </td> </tr> </table>							Pressure/Forced ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Wave/Twist in Tube ☐ Marks/Chatter ☐	Temperature/Cure ☐ Set-up ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Inspection Incomplete/Unqualified ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Instructions Incomplete/Unclear ☐ Drill Holes ☐	Power Loss/Surge ☐ Folio/Program ☐ Grain ☐ Weld ☐ Wrong Stock Pulled ☐ Out of Sequence ☐ Off-set ☐ Misabeled ☐ Fit/Function ☐ Misaligned/off center ☐	Positioned Wrong ☐ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Drawing ☐ Finish ☐ Misread ☐ Turning Sequence ☐
Environment ☐ Design ☐ Doc/Data ☐ Equip/Tooling ☐ Handling/Pre ☐ Material ☐ Internal Transport ☐ Tribal Knowledge ☐ LQA ☐ Substation ☐ Past Expiry Date ☐ Misidentified ☐	No Re-verification ☐ Operator ☐ Offset/Setup ☐ Supplier ☐ Training ☐ Use for Testing ☐ Poor Information ☐ Rushing ☐ Product Improvement ☐ Process Improvement ☐ Manufacturing Process ☐ Past Due ☐																
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OTHER : _____																	

Work Order ID 134045

Thursday, June 25, 2015 12:35:34 PM

134045

Page 2

Item ID: D412-702-021
 Revision ID:
 Item Name: Shoulder Harness, 4 Point Attachment, 13 Man Configuration
 Start Date: 6/25/2015 Start Qty: 2.00 *2*
 Required Date: 6/25/2015 Req'd Qty: 2.00 *2*
 Reference:

Accept

N900040100

Setup Start *NS1*
 Stop *NS2*

Cust Item ID:
 Customer:

Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____
 QC: _____ Date: _____ SPC (Y/N): _____ Date: _____

Run Start *NR1*
 Stop *NR2*

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
120	QC4- 100% Inspect kits for completeness	0.00		DAS 6 9-89			AUG 17 2015		
120									
QC	Memo	0.00							
Quality Control									
130	Packaging	0.00		DAS 6 9-89					
130									
Packaging	Memo	0.00							
Packaging	Identify and pack for shipping as per PPP D412-702-021 Location: <u>Ship</u>							AUG 17 2015	
140	QC21- Final Inspection - Work Order Release	0.00							
140									
QC	Memo	0.00							
Quality Control									

AUG 17 2015

AUG 17 2015

Picklist Print

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Page 1

Work Order ID: 134045

134045

Parent Item: D412-702-021

D412-702-021

Parent Item Name: Shoulder Harness,4 Point Attachment,13 Man Configuration

Start Date: 6/25/2015

Required Date: 6/25/2015

Start Qty: 2.00

Required Qty: 2.00

Comments: IPP Rev:B Removed Manufacturing 05-11-08 JLM
 IPP Rev:C06.04.03As per DSI9324 JLM
 IPP rev D 06.12.14 per ecn 871 EC
 IPP Rev:E 07-03-14 As per DSI 9351 JLM
 IPP Rev:F 07-07-28 As per Rev E JLM Verified By:ec IPP Rev.G
 11.05.31 DSI 9559 EC verified by:JLM

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
AN4-13A		Purchased		No		120	Each	688.0000	4	8			DAS 27 9-89

AN4-13A

Bolt

Location	Loc Qty	Loc Code
FG	20	
122808	20	
ST325A	644	
m131957	199	
m132317	145	
m132551	300	
ST344	24	
131677	24	

AN4-20A

Purchased No

120 Each

24.0000

8 16

AN4-20A

Bolt

Location	Loc Qty	Loc Code
GA	24	
116419	24	

m132617 16

AUG 03 2015

DAS
26
9-89

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Work Order ID: 134045

134045

Parent Item: D412-702-021

D412-702-021

Parent Item Name: Shoulder Harness, 4 Point Attachment, 13 Man Configuration

Start Date: 6/25/2015

Required Date: 6/25/2015

Start Qty: 2.00

Required Qty: 2.00

AN4-5A

Purchased

No

120

Each

171.0000

4

8

AN4-5A

BOLT

DAS
27
9-89

DAS
28
9-89

DAS
6
9-89

Location

Loc Qty

Loc Code

CA

55

m129682

55

ST345

101

6651

1

m132317

100

ST346

15

106605

1

120562

2

m131800

12

D3195-041

Manufactured

No

120

Each

7.0000

2

4

D3195-041

Bracket

AUG 14 2015

DAS
27
9-89

DAS
28
9-89

DAS
6
9-89

Location

Loc Qty

Loc Code

ST025

7

118941

2

133451

5

D3195-043

Manufactured

No

120

Each

8.0000

2

4

D3195-043

Bracket

AUG 05 2015

DAS
27
9-89

DAS
28
9-89

DAS
6
9-89

Location

Loc Qty

Loc Code

ST025

8

118939

3

133450

5

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Work Order ID: 134045

134045

Parent Item: D412-702-021

D412-702-021

Parent Item Name: Shoulder Harness,4 Point Attachment,13 Man Configuration

Start Date: 6/25/2015

Required Date: 6/25/2015

Start Qty: 2.00

Required Qty: 2.00

D3196-1

Manufactured No

120 Each

3.0000

D3196-1

Bar

DAS
6
9-89

Location

Loc Qty

Loc Code

ST256

3

119624

3

D3196-3

Manufactured No

120 Each

8.0000

D3196-3

Bar

Location

Loc Qty

Loc Code

ST256

8

105278

1

118832

3

124103

4

D3196-4

Manufactured No

120 Each

7.0000

D3196-4

Bar

DAS
6
9-89

Location

Loc Qty

Loc Code

ST256

7

119374

3

124176

4

D3197-041

Manufactured No

120 Each

0.0000

D3197-041

Bar

DAS
6
9-89

D3198-1

Manufactured No

120 Each

14.0000

D3198-1

Fitting

DAS
6
9-89

Location

Loc Qty

Loc Code

ST025

14

120301

14

**

**

**

**

DAS
26
9-89

DAS
26
9-89

DAS
26
9-89

DAS
26
9-89

DAS
26
9-89

JA AUG 14 2015

AUG 05 2015

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Work Order ID: 134045

134045

Parent Item: D412-702-021

D412-702-021

Parent Item Name: Shoulder Harness, 4 Point Attachment, 13 Man Configuration

Start Date: 6/25/2015

Required Date: 6/25/2015

Start Qty: 2.00

Required Qty: 2.00

D3268-1

Manufactured No

120

Each

13.0000

2 4

D3268-1

Placard

DAS
6
9-89

**

DAS

27

9-89

Location

Loc Qty

Loc Code

ST032

13

127993

1

132242

12

D3546-1

Manufactured No

120

Each

10.0000

2 4

D3546-1

Clip

DAS
6
9-89

**

DAS

27

9-89

Location

Loc Qty

Loc Code

ST051A

10

127598

10

D3551-11

Manufactured No

120

Each

37.0000

13 26

D3551-11

Hook And Loop Tie

DAS
6
9-89

**

DAS

27

9-89

Location

Loc Qty

Loc Code

ST416

37

120143

5

121427

32

D412-702-069

Manufactured No

120

Each

17.0000

1 2

D412-702-069

Grommet

DAS
6
9-89

**

DAS

27

9-89

Location

Loc Qty

Loc Code

PKg015a

17

118834

6

121269

11

AUG 04 2015

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Page 4

Picklist Print

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Page 5

Work Order ID: 134045

134045

Parent Item: D412-702-021

D412-702-021

Parent Item Name: Shoulder Harness, 4 Point Attachment, 13 Man Configuration

Start Date: 6/25/2015

Required Date: 6/25/2015

Start Qty: 2.00

Required Qty: 2.00

D4387-041

Manufactured No

120

Each

9.0000

9

18

D4387-041

Harness Assy

B134285

**

17

DAS
27
9-89

DAS
26
9-89

DAS
6
9-89

Location

Loc Qty

Loc Code

ST467

9

121404

9

D4387-043

Manufactured No

120

Each

8.0000

4

8

D4387-043

Harness Assembly

**

DAS
27
9-89

DAS
26
9-89

DAS
6
9-89

Location

Loc Qty

Loc Code

ST465

8

122284

4

127833

4

MS21042L4

Purchased No

120

Each

4,356.000

12

24

MS21042L4

Locknut

**

DAS
27
9-89

DAS
26
9-89

DAS
3
9-89

Location

Loc Qty

Loc Code

FP001

10

m124231

10

GA

160

m127813

160

ST260a

3994

m130799

56

m131803

6

m132262

932

m132382

3000

ST305

192

m128300

8

m130388

7

m130922

97

m131618

12

m132123

68

AUG 04 2015

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Work Order ID: 134045

134045

Parent Item: D412-702-021

D412-702-021

Parent Item Name: Shoulder Harness, 4 Point Attachment, 13 Man Configuration

Start Date: 6/25/2015

Required Date: 6/25/2015

Start Qty: 2.00

Required Qty: 2.00

MS24694-S152

Purchased

No

120

Each

34.0000

8 16

MS24694-S152

Screw

DAS
6
9-89

Location

Loc Qty

Loc Code

ST287

34

m130238

34

MS24694-S154

Purchased

No

120

Each

59.0000

8 16

MS24694-S154

Screw

DAS
6
9-89

Location

Loc Qty

Loc Code

ST287

59

m129198

9

m131618

50

NAS1149D0463J

Purchased

No

120

Each

3,753.000

20 40

NAS1149D0463J

WASHER

DAS
6
9-89

Location

Loc Qty

Loc Code

GA

41

M129390

41

ST260a

407

M132317

407

ST269

3305

9222

24

M129682

86

M130799

371

M132035

2824

DAS
27
9-89

AUG 4 2015

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DART SERVICE INSTRUCTION

TO AMEND IIN-D412-702-1 REV. A,
AND ICA-D412-702 REV. 4 OR EARLIER APPROVED REVISIONS
REF. TCCA STC: SH04-7
REF. FAA STC: SR01997NY
REF. EASA STC: EASA.IM.R.S.00710

PURPOSE

The purpose of this DSI is to outline the replacement of existing D3446-041/-043 Shoulder Harnesses with the new and improved D4387-041/-043 Shoulder Harnesses.

CHANGE

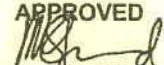
For the following Kits, the D4387-041 and D4387-043 Shoulder Harnesses respectively replace the D3446-041 and D3446-043 Shoulder Harnesses as follows:

Old Harness P/N	Used On	New Harness P/N	Effectivity
D3446-041	D412-702-021	D4387-041	CHG 003 and subsequent
	D412-702-023		
	D412-702-027		CHG 002 and subsequent
	D412-702-029		
D3446-043	D412-702-021	D4387-043	CHG 003 and subsequent
	D412-702-025		CHG 002 and subsequent

Customers who want to upgrade their shoulder harnesses may replace their existing D3446-041/-043 with D4387-041/-043 per this service instruction.

CANADA
DEPARTMENT OF TRANSPORT
AIRCRAFT CERTIFICATION
BRANCH
DAO # 01-O-01

APPROVED

BY: 
D. SHEPHERD (DE # 02)

DATE: 11.05.09
CERT. NO.: SH04-7
ISSUE NO.: 3

A	NEW ISSUE	MB	11.05.09
REV.	DESCRIPTION	BY	DATE
DESIGN		DART AEROSPACE LTD	
DRAWN		HAWKESBURY, ONTARIO, CANADA	
CHECKED		DRAWING NO.	REV. A
MFG. APPR.	N/A	DSI 9559	SHEET 1 OF 1
APPROVED		TITLE	SCALE
DE APPR.		HARNESS CHANGE	NTS
DATE	11.05.09	COPYRIGHT © 2011 BY DART AEROSPACE LTD THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COPIED OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE LTD.	

134045 MLS
150625

DART AEROSPACE LTD.

DAS
6
9-89

IIN-D412-702-1
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QTY -021	QTY -023	QTY -025	QTY -027	QTY -029	QTY -035	Part Number	Description
X						D412-702-021	Dart 13-Man Shoulder Harness Kit, 4-point
	X					D412-702-023	Dart 5-Man Forward Facing Shoulder Harness Kit, 4-point
		X				D412-702-025	Dart 4-Man Aft Facing Shoulder Harness Kit, 4-point
			X			D412-702-027	Dart 4-Man Side Facing Shoulder Harness Kit, 4-point
				X		D412-702-029	Dart 1-Man Forward Facing Shoulder Harness Kit, 4-point
					X	D214-702-035	Dart 5-Man Aft Facing Shoulder Harness Kit, 4-point, for Bell 214B/B-1
1	1		1	1		D412-702-069	GROMMET KIT
2	2					D3195-041	BRACKET
2	2					D3195-043	BRACKET
1	1			1		D3196-1	BAR
1			1			D3196-3	BAR
1			1			D3196-4	BAR
2	2					D3197-041	BAR
4		4				D3198-1	FITTING
2	2					D3268-1	PLACARD
9	5		4	1		D3446-041	HARNESS ASSEMBLY, 4 POINT
4		4				D3446-043	HARNESS ASSEMBLY, 4 POINT
					5	D3446-045	HARNESS ASSEMBLY, 4 POINT
13	5	4	4	1	5	D3551-11	HOOK AND LOOP TIE
2	2					D3546-1	CLIP
4		4				AN4-5A	BOLT
4	4					AN4-13A	BOLT
8		8				AN4-20A	BOLT
20		20				AN960JD416	WASHER (OR NAS1149D0463J)
12		12				MS21042L4	NUT (OR MS21042-4)
8	2		6	2		MS24694-S152	SCREW
8	2		6	2		MS24694-S154	SCREW

QTY -069	Part Number	Description
X	D412-702-069	GROMMET KIT
24	D3619-2	GROMMET
1	D3619-2T1	HOLE PUNCH
1	D3619-2T2	STRIKER BLOCK
1	D3619-2T3	PUNCH
1	D3619-2T4	DIE

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Revision: A
Date: 10.12.01